

THE ROLE OF
LANDSCAPE ARCHITECTURAL FIRMS
IN THE DESIGN OF
RESIDENTIAL HOUSING DEVELOPMENTS

by

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CHAPTER I

INTRODUCTION

Residential Development and the Practice of Landscape Architecture

A review of subdivision design innovations reveals that the trend in residential land planning is toward solutions that are affordable and energy conserving, yet distinctive (APA, 1986). These innovations have been pioneered by developers, organizations, and designers who are willing to challenge obsolete conventional solutions (Jensen, 1984 and Whyte, 1964). It has been found that improved design standards can produce better neighborhoods at lower costs for land, labor, material, and energy on a per unit basis (NAHB, 1984).

"The key is to provide the choice of greater compactness at a cost saving to the consumer. Although that means more attention must be given to design and to open space and other amenities, homebuilders across the country, responding to consumer demands, are already providing some fine examples of clustered housing, new housing types, housing on small lots, and other compact forms" (ULI, n.d.).

Demographically, the trend is toward smaller households and it appears that smaller units on smaller lots are acceptable, if additional site amenities are provided (Johnson, 1985 and Jensen, 1984).

Theoretically, the profession of landscape architecture could become one of the most important design professions in residential planning.

"The Landscape Architect is particularly qualified to undertake housing developments by virtue of training and experience and by a comprehensive view of all factors relating to site selection, planning, grading, and planting. Where the services of properly qualified Landscape Architects have been used in the execution of housing developments, the results almost invariably have been an improved design (ASLA, 1986, p. 297)."

History has shown that early American landscape architecture practitioners made significant contributions in community planning issues (Fisher, 1986). More recent history has shown that landscape architects have only a minor interest in housing (Fein, 1972). An April, 1988, literature search was conducted for the author by the newly developed Landscape Architecture Foundation Research and Information Clearinghouse (LAFRIC) computerized bibliographic database service on the combined topics of landscape architecture and housing. LAFRIC was unable to locate a single entry.

The landscape architects interviewed during the early stages of this study indicated that they provide a full scope of residential planning services. Yet, it has been shown that landscape architects are involved in only a small percent of the total housing industry volume (Fabos, 1987).

With these concerns in mind, a survey was conducted with two separate groups of landscape architectural firms identified as having recognized expertise in residential development. For this study the two groups shall be referred to as Award Group and Directory Group. The Award Group consists of those firms that have received ASLA awards in housing during the 1980s. There were eighteen firms contacted from

this group. The Directory Group represents all those firms who have expressed expertise in residential site design and site planning in the "1986-1987 Directory of Landscape Architectural Firms" (ASLA, 1987). There were forty firms fitting this description that were contacted during the initial stages of the survey.

Study Issues

In this research, the role of Landscape Architectural firms participating in well-planned residential developments was studied.

The objectives of this study are to:

1. Describe the demographics of Landscape Architectural firms involved in designing residential developments.
2. Identify the housing-related professional organizations that address residential development issues of concern to landscape architectural firms.
3. Identify the issues that landscape architects need to be concerned with, if they are interested in having a greater role in residential planning.
4. Define the scope of services provided by landscape architectural firms involved in residential developments; and identify the representative profession or discipline who provided the lead role in those services.

The background issues cited were studied at the national level. However, the study focused on participants in specific regional areas due to the lack of a nationally uniform distribution of firms to be surveyed. The distribution of firms surveyed is shown in Figure 3.01: SURVEY DISTRIBUTION. These regional areas generally coincide with major metropolitan areas.

CHAPTER II

BACKGROUND

"With few exceptions, the new (post 1950's) subdivisions homogenized the land with lots strung out as far apart as income or pride could enforce. The design was embedded in countless local ordinances, in the lending requirements of the FHA and mortgage institutions, and perhaps more important, in the widespread conviction that Americans would accept no other design (Whyte, 1964, p. 11.)"

Subdivision Characteristics

Roughly three-fourths of the present American population is urban and many urbanites live in suburban developments (Stilgoe, 1982). The familiar picture of a public determined to keep its spread-out single-family dwelling prevails in much of America. Yet home buyers are often not able to afford, or not often satisfied with the type of home in which they were raised (Jensen, 1983).

The desire of most Americans to own a home has not changed with the passing of time. The number of people able to afford that home has changed significantly over the last twenty years. "Since 1970, the median sale price has risen 220% while family income has increased only one-half that rate" (Rahenkamp, n.d.). The "affordability gap" which Jensen (1984) describes as the difference between the median household income and the median sales price of a new home, was \$12,000 in 1970; in 1984 that gap had widened to \$68,000. Figure 2.01: AFFORDABILITY GAP, illustrates this disparity.

Demographics, economics, market and land use requirements are the primary determinant of the cost of housing as well as the planning of that housing (Stellar, 1981). Demographically the population is aging, household size is decreasing, and non-traditional households are projected to consist of almost one in three of all households in the nation (Jensen, 1984).

"From a marketing standpoint, it is no longer possible to 'make do' with a grid street pattern lined with single-family houses. They simply will not sell as well as will well-planned developments" (Jensen, 1984, p. 13). Figure 2.02 illustrates the difference between a conventional and an innovative platting system. New trends and forces are changing the planning process. Buyers expect and demand more. The homebuyers of today are looking for more than shelter; they are looking for a distinctive affordable home that is part of a real community (Jensen, 1983).

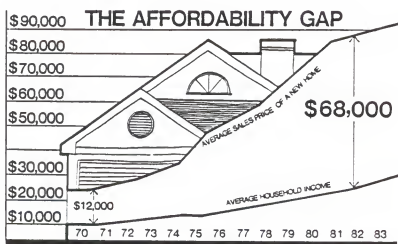
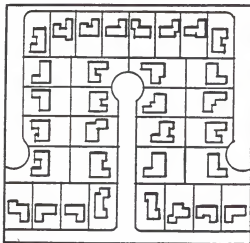
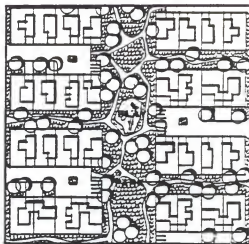


FIGURE 2.01: AFFORDABILITY GAP. Comparison between median incomes and median new home prices from 1970 to 1984. (Source: Jensen, 1984, p.10)

A conventional development is characterized by rows of the permitted minimum sized lots. Generally, these rows of lots are fit into a grid street system until the area is filled to achieve maximum economic payback. This technique has little regard for the natural features of the site (Land Design/Research, 1976). "In defense of developers, it is more likely that zoning regulations and a predetermined grid street plan have left the builder few alternatives. Most suburban communities have been developed under large-lot zoning districts that encouraged urban sprawl" (Kendig, 1980, p. 21).



CONVENTIONAL



INNOVATIVE

FIGURE 2.02: PLATTING ALTERNATIVES. Examples of typical conventional grid and an innovative open space residential platting system. (Source: NAHB, 1975, p. 14)

History of Conventional Developments

The first comprehensive zoning ordinance was adopted by New York City in 1916. In "Village of Euclid vs. Amber Realty Company," the court upheld the validity of a zoning ordinance for that village (Kendig, 1980). This ordinance scheme divided all the city areas into specific zoning districts, prescribing minimum lot sizes and permitted uses (ULI, 1978 & Moore, 1985). This single-lot focus gave local governments a simple method of predetermined regulations. "Looking at the rules and the map, property owners can immediately find out what options they have for the use of their land" (Porter, April 1988, p. 6).

This system seemed to work ideally throughout the 1920's and '30's when development took place in an orderly lot-by-lot basis. However, as needs became more complex and population grew, it was obvious that zoning was failing to address transitions from one segregated use to another. "Conventional zoning has won this bad reputation through decades of applying seemingly immutable regulations to the constantly changing landscape of urban America. Zoning seems to be too inflexible to respond to changing economic, social, and real estate market expectations" (Porter, April 1988, p. 6).

Present street layout patterns also have their origin in the early 20th century. At that time the Federal Government changed the standards of roadway design in response to increasing automobile speed. State and county governments adopted these standards for their highways and roadways (ULI, 1978).

Unfortunately, municipalities integrated these standards into their street design requirements. "The wide expansion of pavement and the large radius curves of highway design are not sympathetic to the more intimate need of community street design. The speed, efficiency, and safety of the automobile are the basis of highway standards. They should not be the standards of low volume residential streets" (NAHB, 1975, p. 9).

Parking lanes are often added to both sides of residential street traffic lanes, again to accomodate the automobile. Curbing on street edges provide control of stray automobiles and the channeling of rainfall runoff. Pedestrian sidewalks are often buffered from the moving traffic by an easement of either side of the street.

Figure 2.03: STREET RIGHT-OF-WAY SECTIONS, compares typical street right-of-way sections. As presented in *Cost Effective Site Planning* (Land Design/Research, 1976) the cost difference of the innovative method compared to the conventional, would net a construction savings of nearly 33 per cent. Past research has been imbalanced toward higher order streets and relatively little statisical information has been focused on the refinement of the major portion of any urban street system — the residential street (Jensen, 1984). "Many subdivisions, street, and zoning regulations are obsolete. Their original intent was to provide simplified consistent standards that a town or county surveyor...could implement throughout the community" (Jensen, 1983, p. 14). Often these factors have limited the design of our communities (Land Design/Research, 1980).

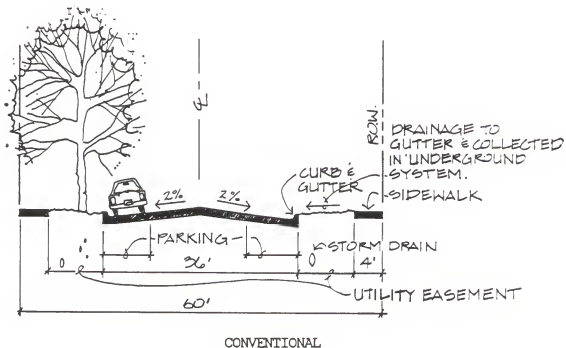
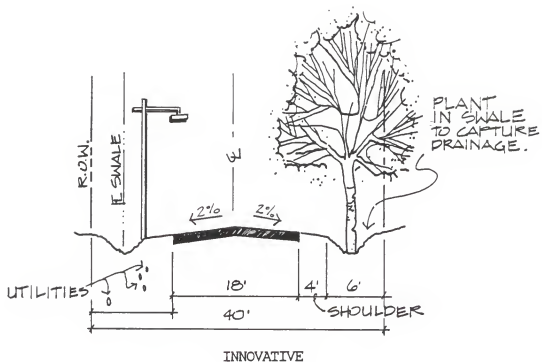


FIGURE 2.03: STREET RIGHT-OF-WAY SECTIONS. Comparison of a conventional and an innovative residential street right-of-way section. (Source: Land/Design Research, Inc., 1976 and drawn by author.)

Alternatives to Conventional Developments

Numerous writers (Stein, 1978; Moore, 1985; Sanders, 1980; Sanders, 1982; ULI, 1983; Jensen, 1981; McPherson, 1984; and Kendig, 1980) have described a variety of alternatives to conventional developments. "Garden City" superblocks; PUDs; clustering; high density living units; zero-lot-line developments; solar and energy efficient site-planning; performance zoning; natural drainage; and open space planning are some of the innovative methods that have proved themselves as better ways of designing residential areas when implemented properly. These methods are viewed as being more successful because they all have attempted to address issues relevant to the quality of residential design.

To test the successfulness of a development the following evaluative criteria has been suggested by the National Association of Home Builders (NAHB, 1975, p. 10) as a guideline in determining residential development quality:

- | | |
|---------------------------|---|
| 1. <u>Privacy</u> | - individual, family, community, and neighbor. |
| 2. <u>Traffic systems</u> | - speed, access, convenience, safety, and recreation. |
| 3. <u>Usable space</u> | - vistas, conservation, density relief, and recreation. |
| 4. <u>Variety</u> | - vistas, landscape variant, density relief, and architectural variety. |
| 5. <u>Identity</u> | - individual, family, and community. |
| 6. <u>Economics</u> | - homeowner, developer, and municipality. |

One of the earliest examples of alternatives to traditional subdivisions was the use of the clustering approach and density transfer (Whyte, 1964). The purpose was to hold down utility costs and emphasis pedestrian circulation while maintaining open spaces. Clustering attempts to achieve an acceptable density over an entire site instead of platting homes uniformly (Sanders, 1980). It is a design and planning tool and "also requires more skilled designers than the traditional lot layout" (Harmen, 1961, p. 155).

The best known early example of cluster housing is Clarence Stein's design for Radburn, New Jersey, and the Greenbelt towns of the 1930s. These projects used a "Superblock" plan where living units were clustered allowing some land to be used as an internal park and walkway. Figure 2.04: RADBURN, N.J. illustrates Stein's concept. Living units were turned away from the street, thus separating open space and automobile circulation (Stein, 1978). "But American was not yet ready for large-scale cluster housing environments. The automobile and the American single-family living unit would not be denied" (Jensen, 1983, p. 14). The clustering concept of residential developments did not come into prominence until the 1960's.

Residential PUD's (Planned Unit Developments) are an outgrowth of cluster housing. The PUD is both a physical planning tool and a legal concept. Projects using this technique usually have a variety of housing types, open space and a community governing association (Burchell, 1972). The uniqueness, however, lies in the fact that they are developed under a special provision in the zoning ordinances or

subdivision regulations. Widely applicable standards are purposely omitted and requirements for each project must be devised on an individual basis between the developer and the local officials (Tomioka and Tomioka, 1984).

The structure of these negotiations generally includes some form of site plan review and may include discussions of phasing or timing of the development. Site planners who are involved with PUD design must be familiar with this negotiation process and zoning regulations (ULI, 1985). This study will address the issue of the landscape architect's ability with zoning and legal issues.

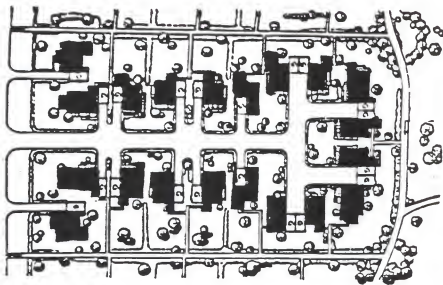


FIGURE 2.04: RADBURN, N.J. Sketch of Clarence Stein's Radburn "superblock" layout. (Source: Stein, 1978.)

In 1961, a joint committee of the Urban Land Institute (ULI) and the National Association of Home Builders (NAHB) conducted a research study of the innovations in residential land subdivisions. The published study, *New Approaches to Residential Land Development: Concepts and Innovations* (ULI, 1961) supported the following "five major areas (in residential development) showing the greatest promise:

1. Planned Unit Development
2. The Clustered Method of Residential Development
3. The Town House
4. Flexible Zoning Controls
5. Improved Subdivision Regulations."

This joint committee offered several means to encourage the implementation of these issues that are of special interest to landscape architects:

1. Reduce the costs of land development through improved, modern land-planning design techniques; and
2. Make specific examples where such objectives have been accomplished available to the housing industry, to landscape architects, to planning and zoning bodies, to professional planners, and to others (ULI, 1961).

Both the ULI and the NAHB continue to support these and other similar concepts via books, bulletins, slide presentations and sponsored seminars. The ULI publishes a quarterly series, *Project Reference Profiles*, which are "intended to be resources for use by the subscribers in improving the quality of future projects" (ULI Project Reference Profiles series). The NAHB has also been active in the support of unconventional residential developments. In their sponsored publication, *Cost Effective Site Planning* (Land

Design/Research, Inc., 1976), clustered development infrastructure (paving, utilities, and sidewalks) was found to be significantly more cost effective than that of a conventional development.

Other organizations have also turned their attention toward improved land planning for suburban area. The American Society of Civil Engineers, the Federal Housing Administration (now the Department of Housing and Urban Development), the Building Research and Advisory Board, American Planning Association, Center of Community Development, The Joint Venture for Affordable Housing, and various universities have joined ULI and NAHB in producing studies and evaluations of innovative community and neighborhood design. (See References, pp. 64-67, for a partial listing of publications by these organizations). Innovations introduced yesterday are now being accepted and promoted by most housing related professional organizations.

Landscape Architects Role

William Whyte, Honorary Member of the American Society of Landscape Architects, made this statement in the 1972 ASLA-sponsored Fein Report:

"I hope we (landscape architects) are on the brink of a big contribution in townscape and urban design. So far, the architects have been directing what little effort there is to be directed — and more power to them. But landscape architects should be in the forefront — not just as subcontractors but as leaders, as once they were. It is

time for the profession to reclaim the initiative." (Fein, 1972, p. 4-151).

American site planners have designed in an environmental context since this country's origin. One of the earliest residential planners is also regarded as the father of Landscape Architecture, Frederick Law Olmsted. The preservation of natural systems concept he employed nearly 100 years ago at Riverside, Illinois, would be equally valued as an innovative residential design today (Newton, 1974 & Fisher, 1986). Figure 2.05: RIVERSIDE, ILLINOIS illustrates Olmsted's open space concept for this Chicago residential development.

"It is a great tribute to Olmstead that the first of his suburbs has managed to maintain its rural character for almost a century despite the increase in automobiles and urban growth. It is perhaps an even greater, if somewhat ambiguous, tribute that Riverside has been the complete or partial inspiration for subsequent developments throughout the country.

As a model for modern developments, Riverside suffers from many of the problems created by population growth and automobile technology. What is important today is its example. Attempts to preserve natural topography in modern design schemes are counterparts of Olmsted's treatment of the Des Plaines River. In days of look-alike housing, moreover, the responsibility of creating unique communities through site planning is even more evident. The concept of community-oriented design is, in fact, the basis for planning in America's hundred "new towns" now being initiated. Riverside marks the beginning of America's attempt to solve such problems in a responsible manner" (Fabos, Milde, and Weinmayr, 1968, p. 51).

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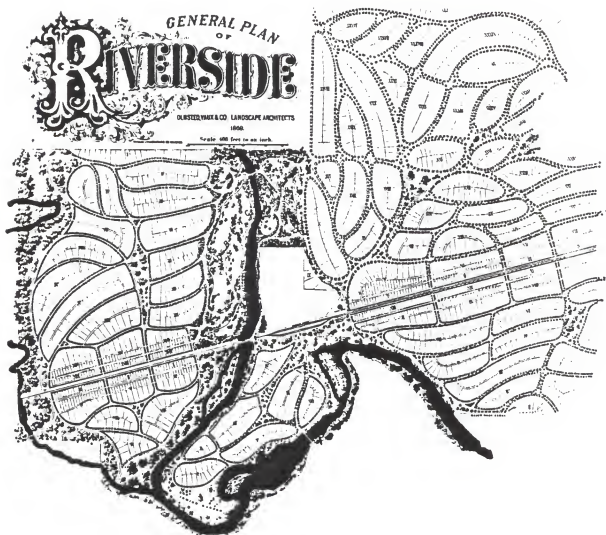


FIGURE 2.05: RIVERSIDE, ILLINOIS. General plan of subdivision designed by F. L. Olmsted. (Source: Fabos and Milde, 1968, p. 52.)

The general site master plan for Beverly Hills, California, was originally designed by landscape architect and city planner, Wilbur D. Cook in 1906. "The preliminary plan showed a curvilinear system of streets, with generous reservations for parks and parkways... A scheme that was well worth the added expense for curving streets instead of the ordinary, checker-board subdivision which provided improved economics in such matters as drainage lines and gradients of streets" (Hall, August 1930, p. 21).

A change occurred in the profession in the 1920's when city and regional planning departed from landscape architecture and emerged as distinct and separate professions. Landscape architects during this period became generally identified as a trade discipline concerned with formal small-scale designs (Fein, 1972).

In a 1952 *Landscape Architecture Magazine* article, "A Case for Landscape Architects: Their Proper Role in the Total Picture of Housing", Beatrice Horneman observed that landscape architects are often asked to improve the areas surrounding buildings without having any input on the siting decisions for those buildings. The landscape architect is then blamed for the poor appearance of the project and that his "planting plans" have failed to correct the poor impression made to the general public. "The problem lies ... in the fact that landscape architects, and their knowledge of land use are not consulted until after the die is cast ... for a good landscape plan, there must be a good site plan" (Horneman, 1952, p. 113).

Horneman goes on to say that it is generally the architect-engineer that has been responsible for the design/development of housing plans. Yet their training is not in land use and its development, or environmental issues. "It is the exception, rather than the rule, when landscape architects are consulted in the site planning stage of housing plans" (p. 114). This article could just as well have been written in 1962, 1972, or 1982.

King (1962) has stated that he believes landscape architects must sell themselves as land planners, that they should study the problems of housing projects, and familiarize themselves with management and financial operations. "It is up to us to fit ourselves into the picture of housing, there are many places where our services are needed" (King, 1962, p. 244).

The 1960's did see an emergence of public conscienceness of environmental issues. Because of this American ecological movement Congress passed the National Environmental Policy Act; and Earth Day was promoted and widely observed. It is during this same time of acute ecological conscienceness that Ian McHarg wrote *Design With Nature* (1969). The time was right for the environment to be the basis for planning (LoFurno, 1986). McHarg's system of overlays provides the planner with scientific and rational models that help assess the impact of growth and the most appropriate location for that growth (McHarg, 1964). Environmental planners agree that development should occur only where it would have minimum impact on natural ecosystems (Newton, 1974).

As pointed out previously, it is also in the 1960s when ULI, NAHB, and others began to actively backed the concepts of higher density, cluster housing, and the re-evaluation of obsolete zoning laws. It would seem that during this period of acute environmental awareness and organizational backing of innovative residential planning the landscape architect would be well qualified to provide a leadership role in housing. In 1964 ASLA's Board of Trustees approved a society policy on housing (ASLA, 1986).

Landscape Architects state they are particularly qualified to undertake housing developments by virtue of their training and experience (ASLA, 1986). Yet, as pointed out in various articles, studies, and telephone conversations during this research, landscape architects have long been viewed as the poor cousins of architecture and engineering (Horneman, 1952, and King, 1962).

In the 1972 ASLA-sponsored Fein Report, less than 50% of the surveyed land developers and corporation executives felt that there was even a need for landscape architects in the area of housing. The percent of these groups that actually worked with landscape architects at any level is likely much less. It is clear that the profession of "landscape architecture is probably confronted with the most formidable set of challenges it has ever encountered...to respond to the multi-faceted problem of environmental planning, design, and management" (Fein, 1972).

It may be that those in the profession of landscape architecture interested in being involved in the planning of large-scale regional sites such as housing developments, would be more appropriately titled a "site planner". This question of professional title was an issue studied by the Fein Report. There is apparently a substantial percentage of landscape architects that feel the title "landscape architect" does not adequately represent the profession. The two most frequent alternative titles suggested to the Fein Report are titles using either "environmental" or "planner".

"The title of 'site planner' is often used indiscriminately by professionals such as land surveyors, engineers, landscape architects, urban designers, architects, and planners. In practice, a person with a balanced background in all aspects of environmental design is best qualified to responsibly design large-scale environments" (Untermann and Small, 1977, p. 16).

An effective housing development site planner requires a knowledge and insight into all aspects of that development: finance, marketing, codes, architecture, construction, and management. He must be able to communicate and function with as diverse a team make-up as: a lawyer, banker, sociologist, developer, architect, and scientist (Untermann & Small, 1977).

Related Professional Organizations

As pointed out previously, there are many organizations that have made major contributions to responsible residential development planning. They are to be congratulated. Of particular interest to this research is the American Society of Landscape Architects' (ASLA) contributions and support of the housing issues. Other related professional organizations are also of interest to this study, especially the National Association of Home Builders (NAHB), and the Urban Land Institute (ULI).

American Society of Landscape Architects

"ASLA exists to provide a bond of unity and strength between individual landscape architects across the United States. In this bond, ASLA effectively promotes the advancement of knowledge, education and skill in the art and science of landscape architecture as an instrument of service in the public welfare."

ASLA has a council of Open Committees, consisting of ten committees, including a Housing Open Committee. In 1987 there were 38 members on this committee. An Open Committee implicates a volunteer group of individuals bound together by a common interest. The total ASLA 1987 membership was approximately 9,500. The following is ASLA's policy "On Housing" as approved by the Board of Trustees, January, 1964:

The American Society of Landscape Architects holds that a decent home is the right of every American family and recognizes that the environment and setting in which such homes are located is a primary factor in maintaining a high standard of family life. Accordingly, the Society recognizes the importance of good design in all aspects of housing and related development, and pledges its efforts toward the achievement of better design in housing, particularly in urban areas where good design is one of the most constructive aspects of the total urban problem.

The Society believes that the landscape architect is an essential and indispensable member of the design "team" and for this reason, urges at every opportunity the inclusion of the landscape architect as a participant in the design of a development project.

Commentary

The landscape architect is particularly qualified to undertake housing developments by virtue of training and experience and by a comprehensive view of all factors relating to site selection, planning, grading, and planting. Where the services of properly qualified landscape architects have been used in the execution of housing developments, the results almost invariably have been an improved design and have reflected and deepened understandings of the problem involved (ASLA Members Handbook, 1986).

The Society, through its members, pledges itself to active participation in matters of inter-professional collaboration at all levels in attempting to obtain improved design and the accomplishment of quality design solutions which will accomplish a proper living environment for the inhabitants.

The Society also pledges itself to a constructive program of activity with other professional societies and groups in order to effectively represent to governmental agencies at all levels its deep concern for the accomplishment of adequate design solutions, and pledges to the agencies involved its full cooperation so that they may develop a better understanding of the nature of the profession of landscape architecture and obtain adequate professional services in discharging their responsibilities." As this policy states, landscape architects feel they possess the training and experience to be involved with the site selection, planning, grading, and planting of housing developments; and that that involvement results in a more successful design (ASLA, 1986).

Urban Land Institute

"ULI is an independent, non-profit research and educational organization incorporated in 1936. The purpose of the organization is to foster improvements in land development policy and practice through information exchange, establishment of development standards, research, and education" (ULI, n.d.).

ULI has a roster of over 12,000 full members. The ULI has 19 councils of different focus. The Residential Council which concerns itself with housing issues has a fluctuating mebership of 50-60 selected members. This committee has co-sponsored several national housing seminars. The Institute receives its financial support from membership dues, sale of publications, and contributions for research and services.

Urban Land Magazine is ULI's monthly flagship publication. This magazine features frequent articles about issues such as zoning, affordable housing, and development policies. Another publication of the Institute is the *Project Reference File* (PRF) which provides specific information about development projects including photographs, descriptions, and site plans. Residential developments are frequent submittals.

National Association of Home Builders

"The NAHB has evolved into one of the country's most powerful trade association with more than 141,000 members" (NAHB membership publication). These members include builders and related industry professionals in allied fields such as finance, the building supply industry, sales, and marketing.

The Committee on Land Development, and the Committee on Land Use and Environmental Affairs of the NAHB are actively concerned with housing issues. Members from these committees and other associates of NAHB have been instrumental in several nationally recognized innovative housing publications, some of which are listed in References Cited, pp. 64-67 of this study. In 1983 the NAHB sponsored a well-attended program at the Indianapolis ASLA National Meeting. The program topic was the landscape architect's and developer's perceived roles in housing.

Introduction to Research

This research attempts to provide insight on the role of landscape architectural firms who are presently involved in residential housing developments. Four study issues were addressed:

1. Demographics (size of firm, percentage of residential projects, and firm type);
2. Association with Professional Organizations;
3. Residential Development Background Issues; and
4. Scope of Services.

This researcher was unable to identify a similar study, although the Fein Report (1972) did address some of these issues. The background research conducted for this study yielded information about landscape architects' abilities to design environmentally and in a range of scales. There are numerous studies concerning innovative residential developments that are multi-scaled and environmentally sound. The combination of landscape architects' involvement in residential developments, however, has received little attention.

CHAPTER III

METHODOLOGY

Overview

The study issues listed in the Introduction (see Chapter I; p. 1) constitute the core of the study and were expanded into six questions and two scope of service worksheets on the survey form.

The basic hypothesis with which this project began was as follows:

If Landscape Architectural firms are involved in the design of innovative residential developments, then what is the scope of those services provided by these firms, and what is the general employee profile of these firms?

To study this hypothesis several questions need to be addressed.

1. What is the scope of services provided by landscape architectural firms? Is there a difference in scope between large and small developments, or between award-winning firms and other firms involved in residential development?
2. What are the demographics of the firms involved in providing residential developments services? How do these firms describe themselves, what is their percentage of

involvement in housing, and is that involvement dependent on other factors?

3. If the American Society of Landscape Architects (ASLA) and the profession of landscape architecture as a whole does not consider housing a priority, what other professional organizations might provide support and educational needs for these firms?

The basic design of the study will be to survey two groups of landscape architectural firms to determine their scope of services in residential development. Survey techniques, form, and administrative procedure follows recommendations from Erdos, 1983. Both groups were also asked their perception of knowledge needed by a landscape architect involved in residential planning; and what national professional organizations might best meet those needs. Figure 3.01: SURVEY DISTRIBUTION illustrates the location of those firms surveyed. The survey population was taken from the following groups:

1. Recent recipients of ASLA residential planning awards.
2. Listings from the *1986-1987 National Directory of Landscape Architectural Firms* (ASLA, 1987).

The Award Group (first group) consists of those firms that have been recent recipients of ASLA awards in housing. Based on the fact that all in this group have received some type of award, demonstrates the fact that those firms have reached some level of recognition by their peers for their part in the design of a residential housing

who have expressed expertise in residential site design and site planning as stated in the "1986-1987 Directory of Landscape Architectural Firms." Some of the research findings will compare the involvement and demographics of these two groups; while other findings will use the combined findings to draw appropriate conclusions.

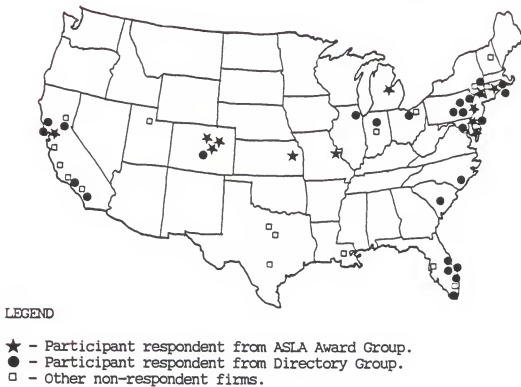


FIGURE 3.01: SURVEY DISTRIBUTION. Location of firms contacted to participate in the survey.

The Award Group was selected from a listing of all ASLA award recipients during the years 1976-1987. There was an attempt made to interview by telephone all eighteen firms receiving an award during the 1980's in Community Planning or Housing. The purpose of the telephone interview was to:

1. Identify an individual as being the most appropriate to represent the firm by participating in a written questionnaire.
2. Determine if the firm is recently involved in residential developments.
3. Cite issues that need attention in regard to the involvement of landscape architects in residential developments.
4. Identify the range of services and the timing of those services provided by their firm.
5. Survey the type and size of residential developments to which they have contributed.
6. Pre-test a preliminary questionnaire.

Fifteen of the eighteen agreed to participate further in the research by completing a questionnaire. Interestingly, after telling the initial contact person the reason for my inquiry and identifying myself as a graduate student at Kansas State University, I was often directed to a former KSU graduate or a junior member of the firm.

Forty firms in the second group received the request and survey. Both surveyed groups were asked to participate in the same mail survey. They also received an accompanying cover letter explaining my interest in the subject matter, the reason their firm was selected for the survey, their rights as a participant, and survey directions. Reduced copies of the original cover letter and survey instrument are illustrated in Appendix A, p. A-2 to A-5. All surveys were directed to one of the principals of the firm, as their names are listed in the National Directory of Landscape Architectural Firms, and directed surveys generally command a greater return rate.

Survey Instrument

A mail survey was used to collect data for this study because it was more cost effective and removed the personal bias of a phone conversation. Several of the preliminary telephone surveys revealed that practitioners preferred filling out a form at a time that was convenient for them and would have the opportunity to research the answers from appropriate sources. The use of a questionnaire also assured a permanent record of the data.

Brevity of the survey instrument was considered essential for two reasons: first, to encourage a greater rate of participation in the survey, and secondly, to permit expedient completion of the survey. The participants were told that completion should be possible in less than 15 minutes.

The five study issues stated in the Chapter I (p. 4) of this thesis were formulated into a survey instrument package consisting of a six question questionnaire and two worksheets. The worksheets were identical except that the respondents were asked to complete one for a large residential development (250 units or more) and one for a small residential development (250 units or less). The questions on the questionnaire dealt with issues landscape architects need to be concerned with if they are to take a greater role in residential planning; to identify the housing-related professional organizations that address residential development issues of concern to landscape architectural firms; and identify the professional title used by firms involved in residential developments to describe themselves. The two worksheets dealt with the scope of services provided by landscape architectural firms involved in residential developments and the respondents were asked to rank the importance that these services provide to the ultimate success of the project. The source used to develop the services identified in the worksheets was American Institute of Architecture, Document 141B.

The cover letter was typed on a typewriter with a memory. Each letter sent was individually typed from memory onto white bond paper. All addresses and salutations were then individually typed. There were minor differences in the wording to each of the two groups. Reference was made in each case to the reason their firm was chosen for the research.

The questionnaire was copied on a 8-1/2" x 11" buff-colored sheet and the worksheets were photo-reduced on two buff-colored 8-1/2" x 14" sheets. These forms were then folded and packaged with the personalized cover letter and an addressed, postage-paid return envelope for each respondent. The material cost per survey instrument was approximately \$0.80 including postage, copied survey, and envelope.

A preliminary survey was pre-tested during telephone conversations with twelve potential participants representing the first surveyed group and several faculty members in the Departments of Landscape Architecture, Regional and Community Planning, and Statistics at Kansas State University. As a result of the pre-test input, the survey was re-focused away from residential development types to services provided. The final survey was re-tested using three practitioners in the Omaha, Nebraska area. Unfortunately, this group did not adequately represent the actual surveyed population.

Data Collection/Processing

On February 25, 1988, fifty-eight survey packages were mailed to firms throughout the United States. An initial return rate of 44 percent was achieved by mid-March. At that time a follow up postcard was sent to all nonrespondents. As a result of the "second wave" of communication, a return rate of 50 percent was achieved. On March 25, 1988, twenty duplicate survey packages were mailed to nonrespondent firms. An incentive of \$1.00 was included with the "third wave" of

communication. As a result of the "third wave" of communication, which was accompanied by a monetary incentive, a total return rate of 62.5 percent was achieved. To aid in completion of this research, and for the sake of sanity of the researcher, any survey instrument returned after April 15, 1988 was not considered. The final return rate was 67 percent.

Handwritten personal "Thank You" cards were promptly sent to all individuals that took the time to participate in the research survey. Data was organized and analyzed with micro-computer data base management software.

Limitations in Methodology

Surveyed groups

There are two major reasons for a certain amount of bias in the resultant findings: 1) the small population of surveyed firms; 2) the lack of random selection of a population. There is bias because the research intent of this study was to target only those firms who could be positively identified as having involvement in residential development. It was also the intent of the study to be able to draw some conclusions about the role of recognized landscape architectural firms who have designed successful projects. Firms receiving ASLA awards were regarded in this study as having earned that recognition. A random selection of population was disregarded because of difficulty

identifying the involvement of landscape architectural firms in residential developments using only the *ASLA Members Handbook*, and the restrictive cost of additional surveys. For this reason only the 40 firms identifying themselves as having this expertise in the 1986-1987 *National Directory of Landscape Architectural Firms* was chosen.

Format

There is evidence that respondents did not read the instructions for some questions as they filled out the form. The small size of words on the worksheets (reduced because of space limitations) and awkward wording of a portion of the instructions, apparently misled some respondents. Question 4 on the questionnaire (see Appendix A: Survey Instrument) asked two questions:

"The principals of your firm are associated with which of the following national professional or trade organizations?"

Place an "X" in the blank space beside the most appropriate response. Please, **CIRCLE** the organization that best addresses housing issues of concern to your firm.

_____ AIA	_____ ASLA
_____ APA	_____ NAHB
_____ ASOR	_____ ULI
_____ ASLA, Housing Committee	
_____ ULI, Residential Development Council	
_____ Other, Specify: _____."	

Problems with this question became evident as surveys were returned. Three respondents (or eight percent) circled more than one organization, therefore the issue of "best" could not be measured for those returns, and their answers were discounted. Only 59 percent of the respondents' answers could be counted for the second part of Question 4, "best addresses ... issues."

Several examples of misunderstood wording were apparent on the worksheets. The two worksheets were duplicates except for the words "large" and "small" residential development projects. Some worksheet responses were identical. This could either indicate there is no difference in the scope of services (this case was often stated on the survey) or the scale difference was not noticed. These surveys were counted. There were many incidences of multiple answers to the part of the questions that asks:

"Indicate which professional provided the lead role in each of the following services by placing an "X" in the space below the appropriate professional."

Those parts of questions with multiple answers were discounted. Those responses that indicated that the firm did not provide a service, yet indicated a Lead Discipline/Professional were also discounted.

Pretest

The pretest was implemented locally. The participants were employees of Architect/Engineering firms. Sampling was not representative of the actual participants. The scope of services may have been better addressed if the pretest included a group more homogenous of the actual participants.

The findings are discussed in the same order as the questions are presented on the survey form. The major findings are discussed in four sections that summarize the data for each study issue.

CHAPTER IV

FINDINGS

The findings of this research may be analyzed in several ways. First, a comparison could be made of all four study issues (see Introduction to Research, p. 26) between the Award Group (ASLA award recipients) and the Directory Group (firms listed in the *National Directory of Landscape Architectural Firms*); or the responses from all firms could be combined and each study issue evaluated as a whole. Second, they could enable a comparison of the scope of services based on firm type or size. Third, they could permit a comparison of the issues based on percentage of involvement in residential housing. Lastly, the findings reveal some current attitudes and perceptions of landscape architects in the field of housing.

The major findings are discussed in this chapter. Generally, there were minor differences in the responses of the Award Group and the Directory Group. Tables 4.01a, 4.02, 4.04, and 4.05 represent a sampling of comparison data between the Award Group and the Directory Group, which demonstrate those areas where a significant difference was noted. However, the data for the aggregate of the two groups will be considered representative of the total landscape architectural firm population with expertise in housing developments for this study unless otherwise noted.

Demographics

Firm Description

Question 1 asked respondents to indicate how their firm describes themselves (Figure 4.01: QUESTION 1).

1. How does your firm describe itself? (Check all that apply).
- ☐ a. Landscape Architectural
 - ☐ b. Architectural/Engineering
 - ☐ c. Land Planning
 - ☐ d. Design/Build
 - ☐ e. Land Surveying
 - ☐ f. Other, Specify: _____

FIGURE 4.01: QUESTION 1

Table 4.01: FIRM DESCRIPTION/TITLE represents the frequency of responses in the six options given for the firm's title. Only two respondents did not describe themselves as "Landscape Architectural", one checked "Architectural/Engineering", and the other checked "Land Planning". The second largest title response indicated "Land Planning" which represented 23 firms, or 62 percent. A significant number (ten) indicated "Other" titles. Those responses are found in Appendix B. The most frequent response to "Other" was "Urban Designer".

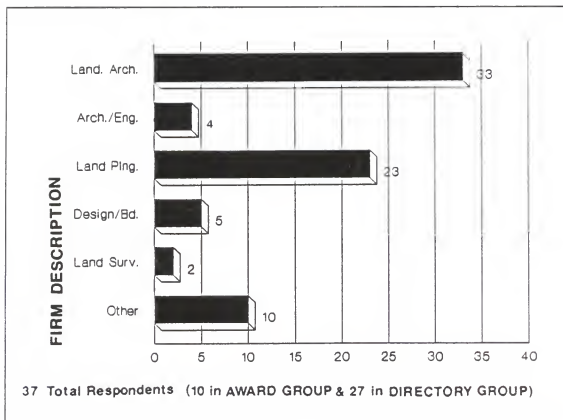


TABLE 4.01: FIRM DESCRIPTION/TITLE. This graph represents the total number of respondents in each of the six title options shown on the vertical axis of the graph.

Table 4.01a: COMPARISON OF FIRM DESCRIPTION/TITLE shows that the Award Group indicates a higher percentage (80 percent) of "Land Planning" respondents and a lower number of "Other" respondents than the Directory Group.

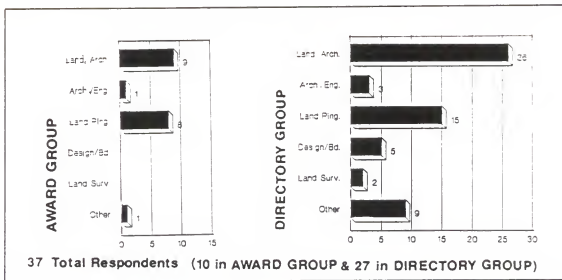


TABLE 4.01a: COMPARISON OF FIRM DESCRIPTION/TITLE BETWEEN BOTH SURVEYED GROUPS. These tables are displayed for comparison purposes. The totals of all six title options are shown for both the Award Group and the Directory Group.

Size of Firm

Question 2 asked respondents to indicate numbers of persons in the firm in a specific profession or discipline (Figure 4.03: QUESTION 2).

2. Indicate the number of people employed by your firm in each of the following disciplines. In cases of employees with multiple disciplines, count the discipline of greatest involvement. Please include all individuals on the payroll.
- | | |
|---|---|
| <input type="checkbox"/> a. Landscape Architect | <input type="checkbox"/> e. Planner |
| <input type="checkbox"/> b. Architect | <input type="checkbox"/> f. Economist |
| <input type="checkbox"/> c. Engineer | <input type="checkbox"/> g. Support Staff |
| <input type="checkbox"/> d. Scientist | <input type="checkbox"/> h. Other |

FIGURE 4.02: QUESTION 2

Total size of firm can be derived by adding all professional/ discipline subtotals. These subtotals are displayed for each responding firm; a separation of the Award Group and the Directory Group is provided to assist in making comparisons (see Table 4.02). According to firm size criteria stated by Clement (1985, p. 18) "the size parameters for landscape architectural firms are:

Very Small firms: 0-2
Small firms: 3-5
Medium firms: 6-9
Large firms: 10 or more people

For multidisciplinary firms, the size parameters are:

Very small firms: 0-5
Small firms: 6-15
Medium firms: 16-30
Large firms: 32 or more people."

Using this size criteria for landscape architectural firms, the vast majority (83 percent) of the respondents represent large firms.

As represented in Table 4.02, the average size of firm and landscape architect population percentages are slightly higher in the Award Group than in the Directory Group. The average size of firm in the Award Group is 29, and the average in the Directory Group is 26. In the Award Group landscape architects constitute 61.3% of the total firm population, and in the Directory Group the profession accounts for a lower percentage of 52% of the total firm.

Firm Code	DISCIPLINE								TOTAL	% of LA
	L.A.	ARCH.	ENG.	SCI.	ECCN.	PLN.	SUP.	OTHER		
1	3 :	1 :	1 :	1 :	1 :	1 :	2 :	1 :	8 :	62.5%
4	16 :	1 :	1 :	1 :	1 :	1 :	3 :	1 :	21 :	76.2%
5	20 :	4 :	1 :	1 :	1 :	4 :	1 :	3 :	32 :	62.5%
6	18 :	1 :	1 :	1 :	1 :	1 :	1 :	1 :	18 :	100.0%
7	19 :	1 :	1 :	1 :	1 :	1 :	4 :	1 :	24 :	79.2%
8	40 :	4 :	1 :	1 :	3 :	1 :	20 :	3 :	72 :	53.6%
9	48 :	1 :	2 :	1 :	1 :	2 :	12 :	1 :	65 :	73.8%
11	14 :	1 :	1 :	1 :	2 :	4 :	6 :	1 :	28 :	50.0%
14	8 :	1 :	1 :	1 :	1 :	2 :	3 :	1 :	15 :	53.3%
16	1 :	1 :	1 :	1 :	1 :	6 :	4 :	1 :	11 :	0.0%
AVERAGES									29 :	61.3%
20	2 :	1 :	1 :	1 :	1 :	1 :	3 :	1 :	7 :	28.6%
21	12 :	1 :	3 :	1 :	1 :	3 :	10 :	3 :	33 :	36.4%
22	3 :	1 :	1 :	1 :	1 :	1 :	1 :	1 :	3 :	100.0%
23	10 :	1 :	1 :	1 :	1 :	2 :	14 :	2 :	28 :	33.7%
24	9 :	1 :	1 :	1 :	1 :	1 :	3 :	1 :	12 :	75.0%
25	20 :	1 :	1 :	1 :	1 :	3 :	37 :	2 :	62 :	32.3%
26	45 :	1 :	1 :	1 :	1 :	10 :	15 :	1 :	71 :	63.4%
27	20 :	1 :	1 :	1 :	1 :	1 :	5 :	2 :	29 :	69.0%
28	4 :	2 :	1 :	1 :	1 :	1 :	2 :	6 :	14 :	28.6%
29	6 :	1 :	1 :	1 :	1 :	1 :	2 :	1 :	9 :	66.7%
30	4 :	1 :	1 :	1 :	1 :	2 :	1 :	1 :	7 :	57.1%
32	5 :	1 :	3 :	1 :	1 :	8 :	5 :	6 :	27 :	18.5%
33	5 :	1 :	1 :	1 :	1 :	1 :	3 :	2 :	10 :	50.0%
34	3 :	1 :	1 :	1 :	1 :	1 :	6 :	1 :	9 :	33.3%
36	14 :	1 :	1 :	1 :	1 :	1 :	6 :	4 :	24 :	58.3%
37	1 :	1 :	1 :	1 :	1 :	1 :	1 :	1 :	2 :	50.0%
38	9 :	11 :	4 :	1 :	1 :	3 :	4 :	6 :	37 :	24.3%
43	3 :	1 :	1 :	1 :	1 :	1 :	1 :	1 :	5 :	60.0%
44	50 :	1 :	3 :	1 :	1 :	1 :	11 :	1 :	64 :	78.1%
46	3 :	1 :	1 :	1 :	1 :	1 :	2 :	1 :	6 :	50.0%
48	13 :	1 :	1 :	1 :	1 :	1 :	1 :	1 :	13 :	100.0%
49	11 :	1 :	7 :	1 :	1 :	2 :	1 :	1 :	21 :	52.4%
50	4 :	1 :	1 :	1 :	1 :	1 :	1 :	1 :	5 :	80.0%
51	26 :	40 :	1 :	1 :	1 :	25 :	40 :	1 :	131 :	19.8%
52	6 :	1 :	1 :	1 :	1 :	1 :	3 :	1 :	10 :	60.0%
60	2 :	20 :	1 :	1 :	1 :	3 :	15 :	1 :	40 :	5.0%
62	16 :	1 :	4 :	1 :	1 :	1 :	2 :	1 :	22 :	72.7%
AVERAGES									26 :	52.0%

TABLE 4.02: SIZE OF FIRM. Represents subtotals of employees aggregated per their discipline/profession as indicated on survey. Total firm population and percentage of Landscape Architects in that total firm population of both groups have been calculated for comparison purposes.

Percentage of Housing Projects

Question 3 asked respondents to indicate the percentage of their projects that involve residential housing (Figure 4.03: QUESTION 3).

3. What percentage of the projects done by your firm involve residential housing?
- | | |
|------------------------------------|-------------------------------------|
| <input type="checkbox"/> a. 0-20% | <input type="checkbox"/> d. 61-80% |
| <input type="checkbox"/> b. 21-40% | <input type="checkbox"/> e. 81-100% |
| <input type="checkbox"/> c. 41-60% | |

FIGURE 4.03: QUESTION 3

Table 4.03: PERCENTAGE OF HOUSING PROJECTS is a bar graph that represents the respondent firms who are involved to various degrees in residential housing. The greatest response of both groups is in the 21-40% range. Nine firms of the two group aggregate (24 percent) indicated the lowest amount of housing projects (0-20%) and only two firms (5.5 percent) indicated the highest (81-100%) amount of housing projects.

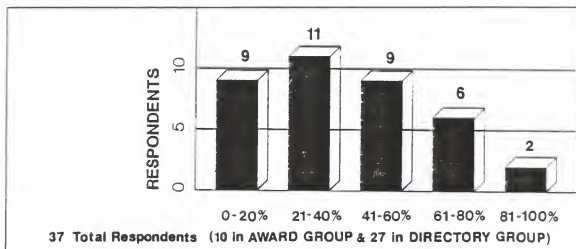


TABLE 4.03: PERCENTAGE OF HOUSING PROJECTS. This chart illustrates the percentage of the total project number that housing projects represent.

Association with Professional Organizations

Question 4 asked respondents about their association with professional organizations and which of these organizations does the best job of addressing housing issues (Figure 4.04: QUESTION 4).

4. The principals of your firm are associated with which of the following national professional or trade organizations? Please, CIRCLE the organization that best addresses housing issues of concern to your firm.

<input type="checkbox"/> AIA	<input type="checkbox"/> ASLA
<input type="checkbox"/> APA	<input type="checkbox"/> NAHB
<input type="checkbox"/> ASCE	<input type="checkbox"/> ULI
<input type="checkbox"/> ASLA, Housing Committee	<input type="checkbox"/> Other, Specify: _____
<input type="checkbox"/> ULI, Residential Development Council	

FIGURE 4.04: QUESTION 4

Table 4.04 illustrates that nearly all (94.5 percent) of the respondents indicated that a principal in the firm is a member of ASLA. Other organizations with high levels of association are ULI, NAHB, and APA. There is a relatively high percentage (19 percent or seven respondents) of membership in the ULI, Residential Development Council, six of these seven respondents were in the Award Group. See Appendix B for responses to the "Other" portion of this question.

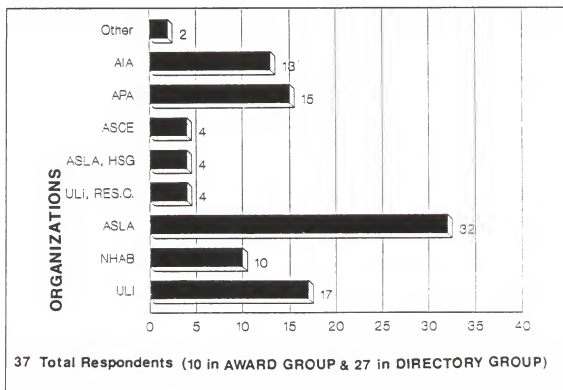


TABLE 4.04: PROFESSIONAL ORGANIZATIONS. This graph represents totals of professional organizations with which the principals of the respondent firms are associated.

Figure 4.04a indicates the total responses to this part of the question which asks the respondent to circle the organization which in their opinion best addresses housing issues. As mentioned earlier (Methodology: Limitations, p.35) there was a low percentage of response to this portion of Question 4.

The principals of your firm are associated with which of the following national professional or trade organizations? Please, CIRCLE the organization that best addresses housing issues of concern to your firm.

<u>1</u>	AIA	<u>2</u>	ASLA
<u>1</u>	APA	<u>6</u>	NAHB
<u> </u>	ASCE	<u>6</u>	ULI
<u> </u>	ASLA, Housing Committee	<u> </u>	Other, Specify: _____
<u>2</u>	ULI, Residential Development Council		

FIGURE 4.04a: ORGANIZATION THAT BEST ADDRESSES HOUSING ISSUES. Numbers on blank space indicated the summation of all respondents to this part of Question 4.

Residential Development Background Issues

Question 5 asked respondents to indicate educational background areas that need additional attention (Figure 4.05: QUESTION 5).

5. In which of the following areas do you feel landscape architects interested in residential planning need more educational background? To indicate more than one answer: prioritize the list by placing an "1" in the blank space beside the area of greatest educational need, a "2" beside the second need area, and so on. A space without a marking shall indicate adequate educational background.
- _____ a. Civil Engineering
 - _____ b. Architecture
 - _____ c. Economic/Finance/Marketing
 - _____ d. Planning Policy/Zoning/Legal
 - _____ e. Communication/Technical Writing
 - _____ f. Project Management/Scheduling
 - _____ g. Design Technology
 - _____ h. None
 - _____ i. Other. Specify: _____

FIGURE 4.05: QUESTION 5

The findings indicated in Table 4.05: EDUCATIONAL BACKGROUND AREAS NEEDING MORE ATTENTION, are presented by both average rank, standard deviation, and range. Each background area is assigned an average rank based on the respondent prioritized listing of background issues, " '1' in the blank space beside the area of greatest educational need, a '2' beside the second need area, and so on" (see Figure 4.05: QUESTION 5).

A division is made between the Award Group and the Directory Group responses to assist in making comparisons.

The area cited as needing the highest priority of additional education background in both groups was "Planning Policy/Zoning/Legal," followed by "Economic/Finance/Marketing." The area receiving the lowest priority ranking in both groups was "Design Technology."

the lowest priority ranking in both groups was "Design Technology." However, the latter observation could be particularly credited to a limitation in the survey instrument. Several respondents commented on the meaning of "Design Technology."

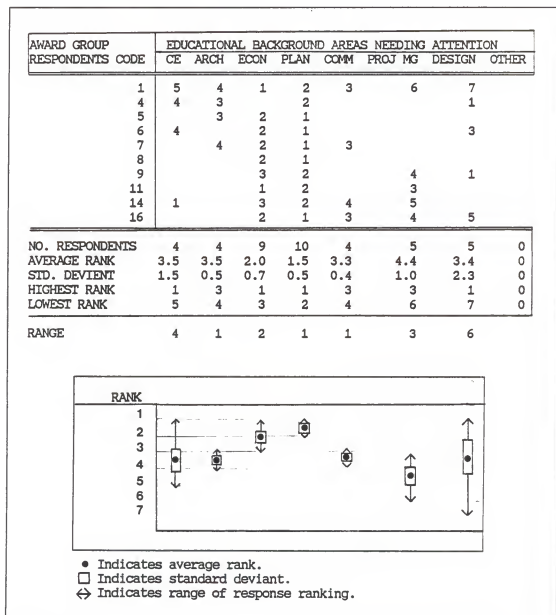
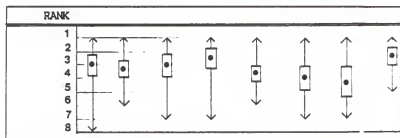


TABLE 4.05: EDUCATIONAL BACKGROUND AREAS NEEDING MORE ATTENTION.
AWARD GROUP

DIRECTORY GROUP RESPONDENTS CODE	EDUCATIONAL BACKGROUND AREAS NEEDING ATTENTION								
	CE	ARCH	ECON	PLAN	COMM	PROJ	MG	DESIGN	OTHER
20	8	2	6	3	4	7		5	1
21	3		1	2		4			
22	1		3	2					
23	7	6	2	1	3		5	4	
24		2	1	3					
25	2	3	4	1					
26	3	4	1	2	6		5	7	1
27	2	3	4	1					
28									
29	1	2	4	3					
30		3	2				1	4	5
32	4	5	1	6			3	2	
33	3	2		1			4		
34			2	1					
36	2		5	3	4		1	6	
37		3					1	2	
38	6	5	2	1	3		4		
43	3		1	2	6		4	5	
44	4			2	1		3		
46	2	5	7	1	6			4	
48	2	3	5	7	4		6	1	
49	1	4	5	3	2		6	7	
50			1	3	2				
51	1	4	6	3					
52	2	1	3	4	5		3	7	
60	4	2	2	1			5	1	
62	3	4	1	5			6		

NO. RESPONDENTS	21	19	23	24	12	17	13	3
AVERAGE RANK	3.0	3.3	3.0	2.5	3.8	4.0	4.2	2.3
STD. DEVIANT	1.9	1.3	1.9	1.6	1.6	1.8	2.1	1.9
HIGHEST RANK	1	1	1	1	1	1	1	1
LOWEST RANK	8	6	7	7	6	7	7	5

RANGE	7	7	6	6	5	6	6	4
-------	---	---	---	---	---	---	---	---



- Indicates average rank.
- Indicates standard deviant.
- ↕ Indicates range of response ranking.

TABLE 4.05: EDUCATIONAL BACKGROUND AREAS NEEDING MORE ATTENTION.
DIRECTORY GROUP

Scope of Services

In the worksheet portion of the survey instrument respondents were asked to address the scope of services they provided and to rank these services in relation to the importance to the final success of the project (Figure 4.06: WORKSHEET DIRECTIONS AND EXAMPLE). Each survey instrument was provided with two identical worksheets, one for large residential developments (over 250 units) and one for small residential developments (less than 250 units). All respondents completed a worksheet for small developments. Eight respondents indicated they were not involved with large developments.

WORKSHEET DIRECTIONS: Please complete the following worksheet based on available data of a large residential development project (more than 250 dwelling units) that best represents the scope of services your firm provides.

A) Rank the importance of each service to the success of the total project by placing a "1" on the most appropriate numbers: "1" being highly important and "5" being of low importance. Marking "0" indicates that the service is not provided. (N.P.)

B) Indicate which professional provided the lead role in each of the following services by placing a "Y" in the space below the appropriate professional.

EXAMPLE:

SERVICES	IMPORTANCE OF SERVICE	LEAD DISCIPLINE/PROFESSIONAL OF SERVICE						
		L.A.	Arch.	Eng.	Sci.	Plnr.	Econ.	Admin. Other
2.02 Site Selection	0 1 2 3 4 5							

FIGURE 4.06: WORKSHEET DIRECTIONS AND EXAMPLE.

Lead Discipline/Professional

In the following six figures, each phase identified in the surveyed scope of services is presented to show the total respondent answers to the question on the first worksheet, "Who provides the lead discipline/profession for each service indicated?"

SERVICES	LEAD DISCIPLINE/PROFESSIONAL OF SERVICE							
	L.A.	Arch.	Eng.	Sci.	Plnr.	Econ.	Admn.	Other
1.0 PRE-DESIGN	5	7			5			1
1.01 Project Management	8	6	1		4	1		
1.02 Base Data Specifications	6	6			8	1	1	
1.03 Data Coordination / Programming	8	3	1		10		1	
1.04 Review Agency Requirements	2	1			1	7	2	4
1.05 Market / Financing Feasibility					1			
1.06 Other, Explain: _____								

FIGURE 4.07: LEAD DISCIPLINE/PROFESSIONAL OF PRE-DESIGN SERVICES.

SERVICES	LEAD DISCIPLINE/PROFESSIONAL OF SERVICE							
	L.A.	Arch.	Eng.	Sci.	Plnr.	Econ.	Admn.	Other
2.0 SITE ANALYSIS	13	2			4		1	6
2.01 Project Management	9				2			2
2.02 Site Selection	10	2	6	1	3	1		2
2.03 Environmental & Engineering Analysis	5	3	1		7	1		
2.04 Zoning Assistance								
2.05 Other, Explain: _____								

FIGURE 4.08: LEAD DISCIPLINE/PROFESSIONAL OF SITE ANALYSIS SERVICES.

SERVICES	LEAD DISCIPLINE/PROFESSIONAL OF SERVICE							
3.0 DESIGN DEVELOPMENT	L.A.	Arch.	Eng.	Sci.	Plnr.	Econ.	Admn.	Other
3.01 Project Management	8	3			4		1	1
3.02 Landscape Design & Documentation	15							
3.03 Engineering Design & Documentation	2		11		1			
3.04 Arch./Struc. Design & Documentation	2	11						
3.05 Cost Estimate	11	4	17			1		1
3.06 Other, Explain: _____								

FIGURE 4.09: LEAD DISCIPLINE/PROFESSIONAL OF DESIGN DEVELOPMENT SERVICES.

SERVICES	LEAD DISCIPLINE/PROFESSIONAL OF SERVICE							
4.01 Project Management	L.A.	Arch.	Eng.	Sci.	Plnr.	Econ.	Admn.	Other
4.02 Landscape Design & Documentation	13	6	2				2	1
4.03 Engineering Design & Documentation	18	1	1					
4.04 Arch./Struc. Design & Documentation	2	1	15					
4.05 Specifications	4	13	1					
4.06 Other, Explain: _____	16	6	8					

FIGURE 4.10: LEAD DISCIPLINE/PROFESSIONAL OF PRE-DESIGN SERVICES.

SERVICES	LEAD DISCIPLINE/PROFESSIONAL OF SERVICE							
	L.A.	Arch.	Eng.	Sci.	Plnr.	Econ.	Admn.	Other
5.0 CONTRACT ADMINISTRATION	11	3	1		1		3	2
5.01 Project Management	11	3	1				3	2
5.02 Bidding / Contract Services	11	3	2				3	2
5.03 Construction Observation / Admin.	17	6	6					1
5.04 Project Evaluation / Record Drawings	10	4	5					2
5.05 Other, Explain: _____								

FIGURE 4.11: LEAD DISCIPLINE/PROFESSIONAL OF CONTRACT ADMINISTRATION.

SERVICES	LEAD DISCIPLINE/PROFESSIONAL OF SERVICE							
	L.A.	Arch.	Eng.	Sci.	Plnr.	Econ.	Admn.	Other
6.0 SUPPLEMENTAL SERVICES	8	1	1	2	1	1		
6.01 Special Consultation	4			1	1			
6.02 Special Studies, Explain:	12	4			1			1
6.03 Renderings/Models/Graphic Design	5	1			1	1	1	3
6.04 Public Relations / Project Promotion	3	1				1	1	2
6.05 Life Cycle / Value Analysis	12			1				2
6.06 Maintenance Program	1							
6.07 Other, Explain: _____								

FIGURE 4.12: LEAD DISCIPLINE/PROFESSIONAL OF SUPPLEMENTAL SERVICES.

In Table 4.06: LANDSCAPE ARCHITECTS IN LEAD ROLES five services of special interest to this study were examined. The following services were scrutinized to determine if their findings were similar to Question 5 findings concerning educational background areas that need more attention:

1. Public Relations/Project Promotion
2. Zoning Assistance
3. Market/Finance Feasibility
4. Review Agency requirements
5. Data Coordination/Programming

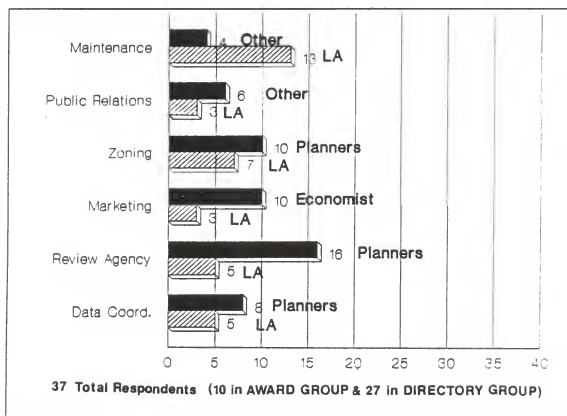


TABLE 4.06: LANDSCAPE ARCHITECTS IN LEAD ROLE. This graph represents total responses to focused services and the lead discipline responsible for those services.

Table 4.06 shows that landscape architects are not providing leadership roles in the following focused services: public relations, zoning, marketing, review of agency requirements, and data coordination. The respondents have indicated that planners provide the lead role in those services. This fact reinforces the findings of Question 5 which showed that landscape architects are generally lacking in background education in the areas of planning, legal issues, marketing, and finance.

The focused worksheet supplemental service, Maintenance Program, was indicated as a service in which the landscape architect provided a major leadership role. As shown in Figures 4.07 through 4.12, other services in which the landscape architects demonstrated a leadership role are the following: Project Management in the Site Analysis, Design Development, Construction Documentation, and Contract Administration phases; the Landscape Design & Documentation services of the later two phases; Specifications; and Graphic Design provided as a Supplemental Service.

Importance of Services

In the following six figures, each phase of the scope of services is presented to show responses to the worksheet portion that asks the respondent "to rank the importance of each service to the success of the total project by placing an "x" on the appropriate number (1-5).

SERVICES	IMPORTANCE OF SERVICE			
	N.P.	High	Avg.	Low
1.0 PRE-DESIGN				
1.01 Project Management	0	1	2	3 4 5
1.02 Base Data Specifications	0	1	2	3 4 5
1.03 Data Coordination / Programming	0	1	2	3 4 5
1.04 Review Agency Requirements	0	1	2	3 4 5
1.05 Market / Financing Feasibility	0	1	2	3 4 5
1.06 Other, Explain: _____	0	1	2	3 4 5

FIGURE 4.07a: IMPORTANCE OF SERVICE: PRE-DESIGN.

SERVICES	IMPORTANCE OF SERVICE			
	N.P.	High	Avg.	Low
2.0 SITE ANALYSIS				
2.01 Project Management	0	1	2	3 4 5
2.02 Site Selection	0	1	2	3 4 5
2.03 Environmental & Engineering Analysis	0	1	2	3 4 5
2.04 Zoning Assistance	0	1	2	3 4 5
2.05 Other, Explain: _____	0	1	2	3 4 5

FIGURE 4.08a: IMPORTANCE OF SERVICE: SITE ANALYSIS.

SERVICES	IMPORTANCE OF SERVICE			
	N.P. High	Avg.	Low	
3.0 DESIGN DEVELOPMENT				
3.01 Project Management	0 ①	2	3	4 5
3.02 Landscape Design & Documentation	0 ①	2	3	4 5
3.03 Engineering Design & Documentation	0 1	②	3	4 5
3.04 Arch./Struc. Design & Documentation	0 1	②	3	4 5
3.05 Cost Estimate	0 1	②	3	4 5
3.06 Other, Explain: _____	0 1	2	3	4 5

FIGURE 4.09a: IMPORTANCE OF SERVICE: DESIGN DEVELOPMENT.

SERVICES	IMPORTANCE OF SERVICE			
	N.P. High	Avg.	Low	
4.0 CONSTRUCTION DOCUMENTS				
4.01 Project Management	0 ①	2	3	4 5
4.02 Landscape Design & Documentation	0 ①	2	3	4 5
4.03 Engineering Design & Documentation	0 1	②	3	4 5
4.04 Arch./Struc. Design & Documentation	0 1	②	3	4 5
4.05 Specifications	0 1	2	③	4 5
4.06 Other, Explain: _____	0 1	2	3	4 5

FIGURE 4.10a: IMPORTANCE OF SERVICE: CONSTRUCTION DOCUMENTS.

SERVICES	IMPORTANCE OF SERVICE			
	N.P.	High	Avg.	Low
5.0 CONTRACT ADMINISTRATION				
5.01 Project Management	0	①	2	3 4 5
5.02 Bidding / Contract Services	0	1	2 ③	4 5
5.03 Construction Observation / Admin.	0	1	② 3	4 5
5.04 Project Evaluation / Record Drawings	0	1	② ③	4 5
5.05 Other, Explain: _____	0	1	2 3	4 5

FIGURE 4.11a: IMPORTANCE OF SERVICE: CONTRACT ADMINISTRATION.

SERVICES	IMPORTANCE OF SERVICE			
	N.P.	High	Avg.	Low
6.0 SUPPLEMENTAL SERVICES				
6.01 Special Consultation	0	①	2 ③	4 5
6.02 Special Studies, Explain:	0	1	2 3 ④	5
6.03 Renderings/Models/Graphic Design	0	1	② 3	4 5
6.04 Public Relations / Project Promotion	0	1	2 3 ④	5
6.05 Life Cycle / Value Analysis	①	1	2 3	4 5
6.06 Maintenance Program	0	①	2 3	4 5
6.07 Other, Explain: _____	0	1	2 3	4 5

FIGURE 4.12a: IMPORTANCE OF SERVICE: SUPPLEMENTAL SERVICES.

CHAPTER V

CONCLUSION

Summary

The findings of this study generally confirm the base assumption and hypotheses with which this thesis research began. Conclusions are derived from the findings of the survey and telephone conversations with key personnel in the field. The conclusions are presented in the same sequence as the findings of the previous chapter. A section noting the main implications of the study findings follows the conclusions drawn by the individual issues. Lastly, a section is included that addresses potential areas of future related study.

Study Issue - Demographics

The demographic section of findings and resulting conclusions address three items relevant to landscape architectural firms involved in residential development: 1) firm description/title; 2) size of firm; and 3) percentage of housing projects.

Demographics - Firm Description/Title

The assumption that most landscape architectural firms actively involved in residential developments choose to describe themselves by additional titles is valid. The dual title most often cited is "site planner."

As alluded to in the Fein Report (1972), by Unterman (1977) and by Shibley (1988), the title 'landscape architect' is perceived by people outside the profession to describe an individual engaged in a narrow landscape oriented role. A land planner, however, evolves the image of an individual with abilities beyond plants and design. The Land Planner/Landscape Architectural dual title is especially evident in the ASLA award recipient group.

Demographics - Firm Size

There was no significant trend or relationship established between firm size and other study issues uncovered in this research. It can be concluded that size of firm does not necessarily influence scope of services provided, amount of residential projects, or association with various professional organizations. The differences between the two surveyed groups was also negligible.

Demographics - Percentage of Projects

The assumption that involvement in residential housing is not a major concern of landscape architectural firms is unquestionably valid. Even among these landscape architectural firms who have some recognition as experts in the area display an involvement percentage much less than 50 percent.

Other factors validate this assumption. Of the 1000 members in the eleven ASLA Open Committees only 48 are associated with the Housing Committee, ranking eighth in membership totals. Several attempts were made to produce a bibliography of the combined topics: landscape architecture and housing. Each source resulted in an absence of the topics. "The Landscape Architecture Foundation Research and Information Clearinghouse (LAFRICH), a computerized bibliographic data base developed specifically for the profession ... with more than 21,000 entries categorized by 1,800 subjects" was also contacted (*Landscape Architecture News Digest*, April, 1988, p. 1). The project director was unable to generate a reference, and directed me to the Urban Land Institute (ULI). Finally, of the 97 titles listed by the ASLA/LA Bookstore only two include subject matter relating to residential housing planning.

Association with Professional Organizations

The assumption that landscape architectural firms involved in residential housing developments are likely to be associated with professional organizations other than ASLA has proven to be accurate. A landscape architect interested in increasing his/her effectiveness in the area would likely turn to other housing related associations to foster that interest.

Considering the multidisciplinary makeup of most landscape architectural firms involved in housing, it is not surprising that their professional affiliation would reflect the various disciplines and their particular interests. What is revealing is the high level of affiliation with groups such as ULI and NAHB who by their own stated objectives cater to a diverse professional membership. The effectiveness of these groups may be attributed to their larger size and funding availability in relationship to ASLA.

ASLA is not to be necessarily criticized for their low level of involvement in housing issues. As has been proven, housing issues are a low priority area to the general landscape architectural population. The situation that could be subject to closer scrutiny is the apparent failure of the ASLA Housing Open Committee to realize the goals established by the Board of Trustees in 1982 for the Council of Open Committees. The stated charge and responsibility of the committees is as follows:

1. Develop and communicate state-of-the-art practice in their professional area;

2. Recommend the best communication to the profession for their practice interests (seminars, products, publications, etc.);
3. Act as focus groups to insure that the profession is communicating accurate information on each area of practice;
4. Advise the Society of changing needs in the specialty area;
5. Increase the effectiveness of landscape architects operating in each specialty area;
6. Further the recognition of landscape architects in each specialty area;
7. Initiate programs and activities that foster an interaction between the Society (profession) and other associations related to the specialty area;
8. Develop ways to improve services to the field, and react to proposed legislation in the field (letter from Matarazzo Design, April 1988).

Residential Development Background Issues

The assumption is valid that landscape architects interested in becoming more involved in residential planning would likely need to increase their expertise in housing-related issues beyond traditional landscape architectural skills. Although there seems to be no area perceived as being above additional attention, landscape architects are most comfortable with their design, project management, and

scheduling skills. Landscape architects need to "know the zoning regulations thoroughly to gain the confidence of the client and the zoning board ... Also, knowing the towns regulations, wetland regulations, state requirements, and where to get this information can put your office in the position of being the prime consultant" (Comments from Respondents, Appendix C, p. A-11). Planning policy, zoning, legal and economic issues are primary areas landscape architects need to understand better.

Scope of Services

Landscape architects are involved in every phase of project development. The assumption has been proven valid that there is no significant scope of service differences between large and small scale residential developments, as provided by landscape architectural firms. There is a minor difference in the amount of supplemental services provided by surveyed Award Group and Directory Group. The Award Group (those receiving ASLA awards for housing projects) provide more supplemental services than the latter group.

Recommendations for Future Study

Initial interest in this research subject matter began with a concern about the quality of residential developments. The first

proposal hypothesis asked who has, and who is designing our residential housing environments. It is still a valid question.

As the residential housing literature search continued it became apparent that there has been a great deal of study concerning the development of improved design standards for the industry. As stated in the background portion of this research, there are many individuals and organizations who have addressed the issues and have developed better alternatives. This research has attempted to address the landscape architect's role in this development. The results of this research have shown an apparent low interest level in housing development issues. Considering the following facts it would seem that housing has the potential for being a major field of interest among landscape architects:

- . Stability - there will likely always be a need for housing;
- . Lucrative - there are financial rewards available in housing (someone is doing this work);
- . Environment - due to the decreasing supply of land and natural resources, housing must be designed with energy and cost in mind.

The question still remains: Why aren't landscape architects more involved in the design of housing? It is still a valid question.

A follow-up article is being planned that will address this question to ASLA membership. It is hoped that such an article will help to confirm or deny this lack of landscape architectural participation in housing issues and to spark interest in subsequent programs,

policies, and communication of concern to those interested in pursuing residential housing projects. An effort to initiate further communication within the ASLA Housing Open Committee is also planned.

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APPENDIX A

Cover Letter and Survey Instrument

Appendix A consists of the following:

Cover Letter	A-2
Questionnaire	A-3
Worksheet concerning small residential developments (less than 250 units)	A-4
Worksheet concerning large residential developoments (more than 250 units)	A-5

Cover letter and survey instrument have been reduced to enable incorporation into this document. The survey instrument original was legal size, 8-1/2" x 14".

Date

Researcher

Addressee

Dear -----;

I am practicing as a registered landscape architect in the state of Nebraska, as well as working toward a graduate degree at Kansas State University. My thesis research, "Landscape Architects role in Residential Developments" reflects my interest in the role of landscape architects in the site planning of residential developments, and the scope of services they provide.

Thank you for participating in my research and promptly completing the enclosed survey. As mentioned in our earlier communication, your firm has been selected to participate in this survey because of award recognition by ASLA in residential planning. Your firm's name, your name and your answers will be held in confidence. None of the information will be revealed to any other individual.

Your input will be valuable to insure accurate and meaningful research data. Your participation in this survey shall hold neither an immediate benefit nor risk to yourself or your firm. Upon request, a copy of the completed research results will be sent to you. Please answer all questions as a representative of your firm and return the survey in the stamped self-addressed envelope by March 11, 1988.

The survey is written in two separate parts. The first part is a questionnaire concerning firm demographics and residential development issues. The second part of the survey is a pair of worksheets. A worksheet is to be completed for both a small and large size project. Size criteria is based on ULI award categories. An incomplete worksheet will indicate that your firm has not been involved with projects in a particular size category.

Please feel free to contact me at any time concerning my research, the survey, your rights as a survey respondent, or information that you feel I need to be made aware of. I can be reached at the above phone on Mondays, Wednesdays and Fridays.

Sincerely,

Mary J. McCawley, ASLA

enclosures.

RESIDENTIAL HOUSING PLANNER SURVEY

Thank you for participating in the research survey. Your answers will be held in confidence. Neither your name nor the name of your firm will be used in the research document.

QUESTIONNAIRE DIRECTIONS: Unless otherwise directed by the question, please indicate your answer to each item by placing an "X" in the blank space beside the most appropriate response.

1. How does your firm describe itself? (Check all that apply).
 - ☐ a. Landscape Architectural
 - ☐ b. Architectural/Engineering
 - ☐ c. Land Planning
 - ☐ d. Design/Build
 - ☐ e. Land Surveying
 - ☐ f. Other, Specify: _____

2. Indicate the number of people employed by your firm in each of the following disciplines. In cases of employees with multiple disciplines, count the discipline of greatest involvement. Please include all individuals on the payroll.

<input type="checkbox"/> a. Landscape Architect	<input type="checkbox"/> e. Planner
<input type="checkbox"/> b. Architect	<input type="checkbox"/> f. Economist
<input type="checkbox"/> c. Engineer	<input type="checkbox"/> g. Support Staff
<input type="checkbox"/> d. Scientist	<input type="checkbox"/> h. Other

3. What percentage of the projects done by your firm involve residential housing?

<input type="checkbox"/> a. 0-20%	<input type="checkbox"/> d. 61-80%
<input type="checkbox"/> b. 21-40%	<input type="checkbox"/> e. 81-100%
<input type="checkbox"/> c. 41-60%	

4. The principals of your firm are associated with which of the following national professional or trade organizations? Please, CIRCLE the organization that best addresses housing issues of concern to your firm.

<input type="checkbox"/> AIA	<input type="checkbox"/> ASLA
<input type="checkbox"/> APA	<input type="checkbox"/> NABH
<input type="checkbox"/> ASCE	<input type="checkbox"/> ULI
<input type="checkbox"/> ASLA, Housing Committee	<input type="checkbox"/> Other, Specify: _____
<input type="checkbox"/> ULI, Residential Development Council	

5. In which of the following areas do you feel landscape architects interested in residential planning need more educational background? To indicate more than one answer, prioritize the list by placing an "1" in the blank space beside the area of greatest educational need, a "2" beside the second need area, and so on. A space without a marking shall indicate adequate educational background.
 - ☐ a. Civil Engineering
 - ☐ b. Architecture
 - ☐ c. Economic/Finance/Marketing
 - ☐ d. Planning Policy/Zoning/Legal
 - ☐ e. Communication/Technical Writing
 - ☐ f. Project Management/Scheduling
 - ☐ g. Design Technology
 - ☐ h. None
 - ☐ i. Other, Specify: _____

6. What issues need attention in regard to the involvement of landscape architecture in residential development? Use space on back of sheet as needed.

WORKSHEET DIRECTIONS: Please complete the following worksheet based on available data on a small residential development project (less than 250 dwelling units) that best represents the scope of services your firm provides.

- A) Rank the importance of each service to the success of the total project by placing a "1" on the most appropriate number; "1" being highly important and "5" being of low importance. Marking "0" indicates that the service is not provided. N.P.
- B) Indicate which professional provided the lead role in each of the following services by placing a "Y" in the space below the appropriate professional.

EXAMPLE:

SERVICES	IMPORTANCE OF SERVICE	LEAD DISCIPLINE/PROFESSIONAL OF SERVICE							
		L.A.	Arch.	Eng.	Sci.	Plnr.	Econ.	Admin.	Other
2.02 Site Selection	0 1 2 3 4 5								

WORKSHEET:

SERVICES	IMPORTANCE OF SERVICE	LEAD DISCIPLINE/PROFESSIONAL OF SERVICE							
		L.A.	Arch.	Eng.	Sci.	Plnr.	Econ.	Admin.	Other
1.0 PRE-DESIGN									
1.01 Project Management	0 1 2 3 4 5								
1.02 Base Data Specifications	0 1 2 3 4 5								
1.03 Data Coordination / Programming	0 1 2 3 4 5								
1.04 Review Agency Requirements	0 1 2 3 4 5								
1.05 Market / Financing Feasibility	0 1 2 3 4 5								
1.06 Other, Explain: _____	0 1 2 3 4 5								
2.0 SITE ANALYSIS									
2.01 Project Management	0 1 2 3 4 5								
2.02 Site Selection	0 1 2 3 4 5								
2.03 Environmental & Engineering Analysis	0 1 2 3 4 5								
2.04 Zoning Assistance	0 1 2 3 4 5								
2.05 Other, Explain: _____	0 1 2 3 4 5								
3.0 DESIGN DEVELOPMENT									
3.01 Project Management	0 1 2 3 4 5								
3.02 Landscape Design & Documentation	0 1 2 3 4 5								
3.03 Engineering Design & Documentation	0 1 2 3 4 5								
3.04 Arch./Struc. Design & Documentation	0 1 2 3 4 5								
3.05 Cost Estimate	0 1 2 3 4 5								
3.06 Other, Explain: _____	0 1 2 3 4 5								
4.0 CONSTRUCTION DOCUMENTS									
4.01 Project Management	0 1 2 3 4 5								
4.02 Landscape Design & Documentation	0 1 2 3 4 5								
4.03 Engineering Design & Documentation	0 1 2 3 4 5								
4.04 Arch./Struc. Design & Documentation	0 1 2 3 4 5								
4.05 Specifications	0 1 2 3 4 5								
4.06 Other, Explain: _____	0 1 2 3 4 5								
5.0 CONTRACT ADMINISTRATION									
5.01 Project Management	0 1 2 3 4 5								
5.02 Bidding / Contract Services	0 1 2 3 4 5								
5.03 Construction Observation / Admin.	0 1 2 3 4 5								
5.04 Project Evaluation / Record Drawings	0 1 2 3 4 5								
5.05 Other, Explain: _____	0 1 2 3 4 5								
6.0 SUPPLEMENTAL SERVICES									
6.01 Special Consultation	0 1 2 3 4 5								
6.02 Special Studies, Explain: _____	0 1 2 3 4 5								
6.03 Renderings/Models/Graphic Design	0 1 2 3 4 5								
6.04 Public Relations / Project Promotion	0 1 2 3 4 5								
6.05 Life Cycle / Value Analysis	0 1 2 3 4 5								
6.06 Maintenance Program	0 1 2 3 4 5								
6.07 Other, Explain: _____	0 1 2 3 4 5								

LEAD DISCIPLINE ABBREVIATIONS:

L.A.: Landscape Architect	Plnr.: Planner
Arch.: Architect	Econ.: Economist
Eng.: Engineer	Admin.: Administrator
Sci.: Scientist	

WORKSHEET DIRECTIONS: Please complete the following worksheet based on available data of a large residential development project (more than 250 dwelling units) that best represents the scope of services your firm provides.

- A) Rate the importance of each service to the success of the total project by placing a "1" on the most appropriate numbers "1" being highly important and "5" being of low importance. Marking "0" indicates that the service is not provided. (N.P.)
- B) Indicate which professional provided the lead role in each of the following services by placing a "Y" in the space below the appropriate professional.

EXAMPLE:

SERVICES	IMPORTANCE OF SERVICE	LEAD DISCIPLINE/PROFESSIONAL OF SERVICE							
		L.A.	Arch.	Eng.	Sci.	Plnr.	Econ.	Adm.	Other
2.02 Site Selection	0 1 2 3 4 5								

WORKSHEET:

SERVICES	IMPORTANCE OF SERVICE	LEAD DISCIPLINE/PROFESSIONAL OF SERVICE							
		L.A.	Arch.	Eng.	Sci.	Plnr.	Econ.	Adm.	Other
1.0 PRE-DESIGN									
1.01 Project Management	0 1 2 3 4 5								
1.02 Base Data Specifications	0 1 2 3 4 5								
1.03 Data Coordination / Programming	0 1 2 3 4 5								
1.04 Review Agency Requirements	0 1 2 3 4 5								
1.05 Market / Financing Feasibility	0 1 2 3 4 5								
1.06 Other, Explain:	0 1 2 3 4 5								
2.0 SITE ANALYSIS									
2.01 Project Management	0 1 2 3 4 5								
2.02 Site Selection	0 1 2 3 4 5								
2.03 Environmental & Engineering Analysis	0 1 2 3 4 5								
2.04 Zoning Assistance	0 1 2 3 4 5								
2.05 Other, Explain:	0 1 2 3 4 5								
3.0 DESIGN DEVELOPMENT									
3.01 Project Management	0 1 2 3 4 5								
3.02 Landscape Design & Documentation	0 1 2 3 4 5								
3.03 Engineering Design & Documentation	0 1 2 3 4 5								
3.04 Arch./Struc. Design & Documentation	0 1 2 3 4 5								
3.05 Cost Estimate	0 1 2 3 4 5								
3.06 Other, Explain:	0 1 2 3 4 5								
4.0 CONSTRUCTION DOCUMENTS									
4.01 Project Management	0 1 2 3 4 5								
4.02 Landscape Design & Documentation	0 1 2 3 4 5								
4.03 Engineering Design & Documentation	0 1 2 3 4 5								
4.04 Arch./Struc. Design & Documentation	0 1 2 3 4 5								
4.05 Specifications	0 1 2 3 4 5								
4.06 Other, Explain:	0 1 2 3 4 5								
5.0 CONTRACT ADMINISTRATION									
5.01 Project Management	0 1 2 3 4 5								
5.02 Bidding / Contract Services	0 1 2 3 4 5								
5.03 Construction Observation / Admin.	0 1 2 3 4 5								
5.04 Project Evaluation / Record Drawings	0 1 2 3 4 5								
5.05 Other, Explain:	0 1 2 3 4 5								
6.0 SUPPLEMENTAL SERVICES									
6.01 Special Consultation	0 1 2 3 4 5								
6.02 Special Studies, Explain:	0 1 2 3 4 5								
6.03 Renderings/Models/Graphic Design	0 1 2 3 4 5								
6.04 Public Relations / Project Promotion	0 1 2 3 4 5								
6.05 Life Cycle / Value Analysis	0 1 2 3 4 5								
6.06 Maintenance Program	0 1 2 3 4 5								
6.07 Other, Explain:	0 1 2 3 4 5								

LEAD DISCIPLINE ABBREVIATIONS:

L.A.: Landscape Architect	Plnr.: Planner
Arch.: Architect	Econ.: Economist
Eng.: Engineer	Adm.: Administrator
Sci.: Scientist	

APPENDIX B

COMMENTS: RESPONSES TO "OTHER" FOR QUESTION 1

QUESTION 1 How does your firm describe itself?

Responses from first group (ASLA award winners):

Multidisciplinarian.
Urban Design.
Urban Design. Civil Engineering.

Responses from second group (Firms listed in Directory of Landscape Architects):

Irrigation Engineering. Graphic Design.
Environmental Planning. Civil Engineering.
Urban Design.
Horticultural Consulting.
Planning Consultants.
Engineering.
Multidisciplinary.
Site Planners.
Urban Design. Transportation Planning.
Comprehensive Planning.

COMMENTS: RESPONSES TO "OTHER" FOR QUESTION 2

QUESTION 2 Indicate the number employed by your firm in each of the following disciplines.

Responses from first group (ASLA award recipients):

- 1 Drafting Person.
- 1 Graphic Artist.
- 3 Graphic Designers.

Responses from second group (firms listed in Directory of Landscape Architects):

- 2
- 9 Administrative and
- 1 Technical Writer
- 2
- 6 Land Surveying
- 3 Graphic Artists
- 2
- 2
- 6 Draftsmen - Designers
- 1
- 4
- 1 Working Drawing Technician

COMMENTS: RESPONSES TO "OTHER" QUESTION 4

QUESTION 4 The principals of your firm are associated with which of the following national professional or trade organizations?

Responses from first group (ASLA award recipients):

None.

Responses from second group (firms listed in Directory of Landscape Architecture Firms):

AICP

FNGA

COMMENTS: RESPONSES TO "OTHER", QUESTION 5

QUESTION 5 In which of the following areas do you feel landscape architects interested in residential planning need more educational background?

Responses from first group (ASLA award recipients):

Design.

Responses from second group (firms listed in Directory of Landscape Architects):

Development process and construction.
Plant materials and design.

APPENDIX C

COMMENTS: RESPONSES TO QUESTION 6

QUESTION 6 What issues need attention in regard to the involvement of landscape architecture in residential development?

Responses from Award Group (ASLA award winners):

Landscape architects need to understand market, financial, and planning/regulatory parameters of development.

Market

Designs - land plans often don't reflect the realities of the market place. What people want and what people can afford to buy.
Demand, pace, price, mix.

Financial

Landscape architects can lose credibility quickly if designs get overly expensive. Engineers and architects understand this better.

Regulatory/legal

Landscape architects can fight bad zoning that is environmentally inappropriate, doesn't allow for the market due to lot size etc.
We have written P.U.D., slope, and tree ordinances to help our projects go through approvals.

Design quality vs. quantity of units.

Landscape architecture needs RECOGNITION as a more important, vital part to properly designed open spaces!

Open space development, land use, and an understanding of land/housing units economics.

Coordination between consultants, i.e. architects, landscape architects, engineers. Increasing role of environmental issues, i.e. wetlands and woodlands protection laws.

They don't think architecturally. They don't understand the socio-economic issues of the market place. They haven't seen enough of what works well.

There is a need to expand the "perception" of landscape architects as "plant material" or site designers only. They need to become involved earlier in the development process. To show how they can influence decisions and make the client money. Landscape architects role today comes to late in the process. But unfortunately, landscape architects are not educated beyond these limited roles.

A greater knowledge of the builder and developer's role and a better understanding of the land planning process.

Responses from Directory Group (firms listed in Directory of Landscape Architects):

Use consciously designed sequence and variety of open spaces as the spine/skeleton for building placement rather than other way around. Requires landscape architects to precede architecture in site design or collaborate together.

Better design. Better knowledge of plant materials and availability.

Construction management. Construction detail design.

Community planning. Understanding of context. Transportation issues. Ecology.

Emerging trends in housing types. New land planning techniques. Changes in population composition and demographics.

Coordination with architect and other consultants from the beginning. Creating an environment that is livable. Having complete control on all exterior amenities; including lighting, signage, and colors of buildings to blend into the total environment.

Storm water management facilities.

Must demonstrate superior ability in dealing with site conditions and planning issues.

Marketing concerns in residential developments (i.e. relating to builder/developers need to sell product). Cost parameters in residential developments.

Utilization of CADD. Familiarity with state/federal environmental regulations. Land development economics/ financing. States should require land plans to be prepared by a landscape architect — in the same way they require final plats and engineering to be stamped by a Professional Engineer (P.E.).

Site selection and feasibility, early involvement, road systems.

Design.

Public relations with developers.

Landscape architects need the knowledge that comes from working with quality developers: marketing strategies, economics housing products available, and zoning regulations.

Environmental impacts. Site planning. Land uses. Grading and drainage. Circulation. Human scale of developments.

1. That landscape development is not a luxury but an investment that enhances a property's value, improves the aesthetic area environmental quality of the neighborhood, and many times serves important functions such as energy savings; erosion control; water conservation etc.
2. Many developments are planned with little thought of working with the existing topography or utilizing or protecting existing vegetation.

APPENDIX D

Notes From Personal Interviews

In the process of gathering information for this research several telephone conversations were initiated with individuals who represent organizations or firms involved with housing. Some of these conversations have yielded personal insights that have helped support the research conclusions.

Anthony Guzzardo and Associates

Anthony Guzzardo and Associates received an ASLA Community Planning Award for their project Portola Valley Ranch, Portola Valley, California, a 454-acre planned community of single-family detached homes located near San Francisco. "The project has stressed ecological balance and conservation. Nearly 400 acres are preserved for open space and wilderness area" (ULI, April-June 1980, *Project Reference File*).

During our December 4, 1987, telephone conversation, Anthony Guzzardo, principal, stated that the roadscape should be considered as a criteria for designing a residential development. "Entrances to the development should be distinguishable from the automobile, and there should never be front lots on major arteries, and above all else,

leave the topography alone." Their firm strives for solutions that minimize the disturbance of the scenic natural setting and design for surface rainfall drainage wherever possible.

Lloyd Bond & Associates

Lloyd Bond & Associates received an ASLA merit award for their involvement with a PUD project in Eugene, Oregon. The 11.66 acre site utilized a wooded open space corridor with recreational facilities. The ASLA jury comments about the project were, "A well-planned, nicely designed scheme. Very impressed with siting and the landscape architect's role. Density was superbly dealt with. An extremely well done planting plan" (*Landscape Architecture Magazine*, September 1982, p. 99).

During our telephone conversation, Mr. Bond emphasized the need for collaboration between landscape architect, architect, and engineer to assure a successful project. He also introduced me to a platting system of which I had not been previously aware — circular lots. This concept was used by Frank Lloyd Wright for his "Falling Waters" residence. The system is best suited for steep wooded slopes. In circular lots, development can occur within the zoned circle (O'Donnell, 1961).

Johnson, Johnson, and Roy

Mr. Tom Mroz, manager of operations for Johnson, Johnson, and Roy Inc., stated during our telephone conversation of 1-18-88, that the largest obstacle in providing a successful innovative residential development is public opinion towards zoning and density change. "The general public has not, as yet, bought into higher density living."

Matarazzo Design, Inc.

Mr. Tim Jordon, representative of Matarazzo Design, Inc., stated in our 1-18-88 telephone conversation that he feels the most crucial research issue that landscape architects need to address is that of affordable housing, particularly for the elderly.

George Matarazzo of Matarazzo Design, Concord, New Hampshire, has been recognized "as an unofficial spokesperson for landscape architecture to the home building industry (*Landscape Architecture Magazine*, September/October, 1987, p. 64). Mr. Matarazzo is the 1988 chairman of ASLA Open Committee of Housing. He has served on the ULI Board of Trustees and is involved in NAHB activities. His firm has received six different ULI awards for residential developments, as well as a 1984 ASLA award for a residential project.

John Rahenkamp & Associates

John Rahenkamp and Associates of Philadelphia earned several ASLA awards. Their joint venture project with Roger Wells, Inc., Landscape Architects, Open Space and Recreation study for Chester County, Pennsylvania is viewed as a model "which serves as an innovative guide and ongoing resource for municipal and county decision makers (*Landscape Architecture Magazine*, September/October, 1986, pp. 82-85)."

Flying Hills, one of the earliest PUD's, was designed by the Rahenkamp firm in the early 1970's and a 1981 recipient of an ASLA Community Planning award. "At Flying Hills, the open space network serves three functions. First it serves as a natural system of storm drainage... Second, open space functions to separate vehicular and pedestrian circulation... Third, open space serves a social function to provide recreational opportunity (LoFurno, 1986, p. 2)."

In a 11-11-87 telephone conversation with David Golad, Marketing Director with Rahenkamp & Associates, Mr. Golad expressed the opinion that it was crucial to "market the need" prior to making design decisions, and that market above all else dictates the type of housing development their firm is involved in. He also said that "no one even lives on a through street as a result of a Rahenkamp design," and that the underlying objective of all projects is to design with nature, letting the physical layout of the site echo existing natural features. Another interesting service that this firm provides is expert court testimony for property and zoning issues.

SWA Group Inc. (Sasaki, Walker & Associates)

The SWA Group Inc. received a 1985 ASLA Community & Multi-Family Housing Award for their "Village North Lagoon" project in Salinas, California, 224 housing units on eleven acres. "The SWA Group provided concept development, site planning, mass grading, and landscape services, while working with the architects to locate structures ... space for pedestrian traffic was increased by restricting parking lots to a peripheral role ... and an internal open space uses a fire lane as a pedestrian corridor" (*Landscape Architecture Magazine*, September/October, 1985, p. 92).

During a December 11, 1987, telephone conversation with a representative from SWA Marketing, Mr. Cliff Lowe stated that the current trend in the type of housing mix being built at any given time is largely a felection of the market. And currently the market trend is towards single-family projects, both attached and unattached.

Mr. Lowe feels that one of the primary roles of landscape architects is to provide a master plan for project strategies, and a road network early in the developmental stage of a residential project in order to resolve problems early. Another challenge he proposed to landscape architects is to take an influential stand concerning the adoption of ordinances that are sensitive to the neighborhood quality and visibility of the site, and to be keenly aware of the additional traffic that a development brings into an area.

National Association of Home Builders (NAHB)

A telephone interview was conducted on March 3, 1988, with Mr. Michael Shipley, Director of the Land Development Committee of the NAHB. His committee is concerned with site planning issues in the home building industry. It may be appropriate to note that Mr. Shibley is an architect by profession.

During the conversation he was asked about his perception of landscape architects role in residential development. He said that "it is my experience with ASLA and AIA (American Institute of Architects) that neither is focused on housing issues." A case in point occurred during the 1983 ASLA Annual Meeting in Indianapolis. At that meeting, the NAHB sponsored an educational session which was a table discussion between developers and landscape architects. The session drew a large attendance. Shibley said the session showed that "developers perceive landscape architects as 'planters' to enhance a development, yet landscape architects perceive themselves as 'planners' that can direct the development. Mr. Shibley also feels that ASLA has done little to bridge this gap between the perceptions of the two groups.

When asked about individual landscape architects who had made major contributions in the field of residential development, he could list only four such persons who were also involved with NAHB. One of those four is George Matarazzo who was described by *Landscape Architecture Magazine* as "an unofficial spokesperson for landscape architecture to the home building industry." (It should be noted that

unsuccessful attempts were made on no less than four occasions to interview Mr. Matarazzo by telephone.) The other three individuals are associated with multidisciplinary firms in Orlando, Florida; Raleigh, North Carolina; and Denver, Colorado.

THE ROLE OF
LANDSCAPE ARCHITECTURAL FIRMS
IN THE DESIGN OF
RESIDENTIAL HOUSING DEVELOPMENTS

by

MARY J. McCAWLEY

B.F.A., University of Nebraska, Lincoln, 1974

AN ABSTRACT OF A MASTER'S THESIS

submitted in partial fulfillment of the
requirements for the degree

MASTER OF LANDSCAPE ARCHITECTURE

Department of Landscape Architecture

KANSAS STATE UNIVERSITY
Manhattan, Kansas

1988

ABSTRACT

A review of subdivision design innovations reveals that the trend in residential land planning is toward solutions that are affordable and energy conserving, yet distinctive. These innovations have been pioneered by developers, organizations, and designers who are willing to challenge obsolete conventional solutions. It has been found that improved design standards can produce better neighborhoods at lower costs for land, labor, material, and energy on a per unit basis.

Theoretically, the profession of landscape architecture is best suited to address the majority of these issues. Landscape architects have the potential to become one of the most important design profession in residential planning. Yet they are involved in only a small percent of the total volume of the housing environment (Forbes, 1987). This study has shown that even among those firms identified as having expertise in residential developments report that residential developments account for a minority of their total projects. Also, landscape architects perceive that those in the profession who wish to be more involved in residential development are lacking in some essential educational background areas. Those areas most often mentioned were legal/zoning and economic/marketing issues.

For this study, a survey was conducted of landscape architectural firms identified as having recognized expertise in residential development. This research attempts to identify the scope of services provided by these landscape architects and identify the lead professional or discipline for those provided services. The landscape

architects interviewed during the early stages of this study indicated that they provide a full scope of housing design services. It has been shown that those landscape architectural firms involved in successful residential developments provide services beyond those of merely design.

This research has confirmed the fact that those firms providing landscape architectural services often describe their firm in terms other than "Landscape Architectural", specifically "Land Planner." The respondents of the survey have identified the Urban Land Institute (ULI) and the National Association of Home Builders (NAHB) as the organizations which best serve the needs of those landscape architectural firms involved in housing.